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Sex differences in high opioid dose escalation among Malaysian patients with long term opioid therapy (Article) [Open Access](#)

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Abstract

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Purpose: This study evaluated the risk of opioid dose escalation as it relates to sex differences among patients receiving opioids for long-term therapy. **Patients and methods:** This retrospective cohort study was conducted in tertiary hospital settings in Malaysia using electronic prescription records. Opioid naïve patients, aged ≥18 years, who were undergoing long-term opioid therapy of ≥90 days, with at least one opioid prescription (buprenorphine, morphine, oxycodone, fentanyl, dihydrocodeine or tramadol) between 1st January 2011 and 31st December 2016, were included in the study. They were followed until (i) the end of the study period, (ii) death from any cause or (iii) discontinuation of therapy from their first opioid prescription without any intervals of ≥120 days between successive prescriptions. The risk of high opioid dose escalation to ≥100 mg/day and ≥200 mg/day relative to men and women was measured. **Results:** A total of 4688 patients (58.8% women, 41.3% men) on long-term opioid therapy were identified. Among these patients, 248 (5.29%) were escalated to high opioid doses of ≥100 mg/day and 69 (1.47%) were escalated to ≥200 mg/day. The escalation to high-dose opioid therapy was more likely to occur in men than in women, even after adjustment for age (dose ≥100 mg/day [adjusted hazard ratio 2.32; 95% confidence interval (CI), 1.79 to 3.00; p<0.0001] and ≥200 mg/day [adjusted hazard ratio 6.10; 95% CI, 3.39 to 10.98; p<0.0001]). **Conclusion:** The risk of opioid dose escalation differed between men and women, as men were at higher risk than women for high opioid dose escalation. © 2019 Zin et al.

SciVal Topic Prominence ⓘ

Topic: Analgesics, Opioid | Prescriptions | Long-term opioid

Prominence percentile: 99.878 ⓘ

Author keywords

Dose escalation Female patient Male patient Opioid prescribing Opioids

Indexed keywords

EMTREE drug terms: buprenorphine dihydrocodeine fentanyl morphine opiate oxycodone tramadol

EMTREE medical terms: adult aged Article cause of death cohort analysis confidence interval controlled study drug dose escalation drug megadose drug withdrawal electronic prescribing female follow up groups by age hazard ratio high risk patient human long term care major clinical study Malaysian male retrospective study sex difference sex ratio tertiary care center very elderly

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Chemicals and CAS Registry Numbers:

buprenorphine, 52485-79-7, 53152-21-9; dihydrocodeine, 125-28-0, 24204-13-5, 5965-13-9; fentanyl, 437-38-7; morphine, 52-26-6, 57-27-2; opiate, 53663-61-9, 8002-76-4, 8008-60-4; oxycodone, 124-90-3, 76-42-6; tramadol, 27203-92-5, 36282-47-0

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